

What is claimed is:

1. A flying head slider comprising:

a first air bearing having a plurality of step-faces and being disposed on a base surface at air inflow side; and

5 a second air bearing being disposed on the base surface at air outflow side,

wherein an upper most surface of said second air bearing is lower than an upper most surface of said first air bearing.

10 2. The flying head slider of claim 1, wherein said first air bearing includes the plurality of step-faces having:

a first step-face;

a second step-face higher than the first step-face; and

the upper most surface higher than the second step-face,

15 in this order from the air inflow side.

3. The flying head slider of claim 2, wherein said first air bearing consists of the plurality of step-faces having three faces such as:

a first step-face;

20 a second step-face higher than the first step-face; and

the upper most surface higher than the second step-face,

in this order from the air inflow side.

4. The flying head slider of claim 1, wherein a side rail is formed in said 25 first air bearing such that the side rail extends from both ends of a shorter side of the flying head slider toward the air outflow side.

5. The flying head slider of claim 1, wherein a negative pressure generating section is disposed between said first air bearing and said second air bearing, and a center point of generating the negative pressure is located nearer to the air inflow side from a center of gravity of the head slider.

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6. The flying head slider of claim 1, wherein a height difference LA between the upper most surface of the first air bearing and the base surface falls within $3.2 \times 10^{-4} L \leq LA \leq 3.6 \times 10^{-4} L$, where L is a length of a longer side of the flying head slider.

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7. The flying head slider of claim 2, wherein a height difference LA between the upper most surface of the first air bearing and the base surface falls within $3.2 \times 10^{-4} L \leq LA \leq 3.6 \times 10^{-4} L$, where L is a length of a longer side of the flying head slider.

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8. The flying head slider of claim 7, wherein a height difference $L2$ between the upper most surface of the first air bearing and the second step-face of the first air bearing falls within $2.9 \times 10^{-2} LA \leq L2 \leq 3.3 \times 10^{-2} LA$.

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9. The flying head slider of claim 7, wherein a height difference $L1$ between the first step-face of the first air bearing and the second step-face of the first air bearing falls within $13.4 \times 10^{-2} LA \leq L1 \leq 14.5 \times 10^{-2} LA$.

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10. The flying head slider of claim 8, wherein a height difference $L1$ between the first step-face of the first air bearing and the second step-face of the first air bearing falls within $13.4 \times 10^{-2} LA \leq L1 \leq 14.5 \times 10^{-2} LA$.

11. The flying head slider of claim 1, wherein said second air bearing includes a plurality of step-faces.

12. The flying head slider of claim 2, wherein said second air bearing 5 includes a plurality of step-faces.

13. The flying head slider of claim 12, wherein the plurality of step-faces include a step-face formed higher than the base surface and a upper most surface formed higher than the step-face in this order from the air inflow side.

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14. The flying head slider of claim 12, wherein the plurality of step-faces include two step-faces such as a step-face formed higher than the base surface and a upper most surface formed higher than the step-face in this order from the air inflow side.

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15. The flying head slider of claim 13, wherein the first step-face of said first air bearing is as high as the step-face of said second air bearing.

16. The flying head slider of claim 14, wherein the first step-face of said 20 first air bearing is as high as the step-face of said second air bearing.

17. A head supporting device comprising:

25 a flying head slider comprising a first air bearing having a plurality of step-faces and being disposed on a base surface at air inflow side and a second air bearing having a head and being disposed on the base surface at air outflow side; and

a suspension for applying a given energizing force to the flying

head slider from a side opposite to a side on which the first air bearing and the second air bearing are disposed on the base surface,

wherein an upper most surface of said second air bearing is lower than an upper most surface of said first air bearing.

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18. The head supporting device of claim 17, wherein the suspension includes a pivot that applies the given energizing force to the flying head slider.

19. A disc driving device comprising:

10 a flying head slider comprising a first air bearing having a plurality of step-faces and being disposed on a base surface at air inflow side and a second air bearing having a head and being disposed on the base surface at air outflow side;

15 a suspension for applying a given energizing force to the flying head slider from a side opposite to a side on which the first air bearing and the second air bearing are disposed on the base surface;

a disc-shaped recording medium;

driving means for driving the disc-shaped recording medium;

18 swinging means for swinging the suspension along a radius direction of the recording medium; and

control means for controlling the drive by the driving means and the swing by the swinging means,

wherein an upper most surface of said second air bearing is lower than an upper most surface of said first air bearing.

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20. The disc driving device of claim 19,

wherein the suspension includes a pivot that applies the given

energizing force to the flying head slider, and

wherein a pivot place is defined as a place where the pivot of the suspension contacts the flying head slider and when a center of gravity of the head slider and the pivot place are projected onto a face of the disc, the two
5 projected places coincide with each other.